



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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April 26, 2017

Mr. Michael D. Stacey, President
Accurate Plastics, Inc.
33 Technology Drive
Falmouth, MA 02536

RE: FALMOUTH
Transmittal No.: X273126
Application No.: SE-17-002
Class: *SM80-7*
FMF No.: 120104
AIR QUALITY PLAN APPROVAL

Dear Mr. Stacey:

The Massachusetts Department of Environmental Protection ("MassDEP"), Bureau of Air and Waste, has reviewed your Limited Plan Application ("Application") listed above. This Application concerns the proposed modification and operation of process equipment at your thermoset plastic industrial laminate facility located at 33 Technology Drive in Falmouth, Massachusetts ("Facility").

This Application was submitted in accordance with 310 CMR 7.02 Plan Approval and Emission Limitations as contained in 310 CMR 7.00 "Air Pollution Control" regulations adopted by MassDEP pursuant to the authority granted by Massachusetts General Laws, Chapter 111, Section 142 A-O, Chapter 21C, Section 4 and 6, and Chapter 21E, Section 6. MassDEP's review of your Application has been limited to air pollution control regulation compliance and does not relieve you of the obligation to comply with any other regulatory requirements.

MassDEP has determined that the Application is administratively and technically complete and that the Application is in conformance with the Air Pollution Control regulations and current air pollution control engineering practice, and hereby grants this **Plan Approval** for said Application, as submitted, subject to the conditions listed below.

Please review the entire Plan Approval, as it stipulates the conditions with which the Facility owner/operator ("Permittee") must comply in order for the Facility to be operated in compliance with this Plan Approval.

1. DESCRIPTION OF FACILITY AND APPLICATION

Accurate Plastics, Inc. (the Permittee) operates a facility in Falmouth, Massachusetts that manufactures thermoset plastic industrial laminates that are used by their customers to produce a variety of industrial products on a customer-demand basis. The facility currently operates two coating lines and associated natural gas fired drying ovens where resins are applied to continuous web substrates. Emissions from the two operating coating lines are vented to a thermal oxidizer. In addition, the facility includes miscellaneous natural gas fired space heating and process heating equipment that was installed as exempt from plan approval requirements.

Emissions from the Accurate Plastics facility are primarily Volatile Organic Compounds (VOC), including some Hazardous Air Pollutants¹ (HAP) from the coating lines, as well as acetone (a VOC exempt, non-criteria pollutant) from the coating and cleaning operations. VOC and non-criteria pollutant emissions from the coating operations are vented to the thermal oxidizer.

The Permittee was issued NMCPA No. 4P96094 on December 8, 1999. NMCPA No. 4P96094 established emission limitations for VOC, HAP, Oxides of Nitrogen (NO_x), Particulate Matter (PM), Carbon Monoxide (CO) and Sulfur Dioxide (SO₂), as well as operating parameters for a Combustion Engineering Model 5-3 Case 3 Recuperative Thermal Oxidizer.

This limited plan application (LPA) has been submitted, in accordance with 310 CMR 7.02(4), to address emissions of the non-criteria pollutant, acetone, from cleaning operations at the facility and to establish acetone emissions from the coating process that was approved as part of Non-Major Comprehensive Plan Application (NMCPA) No. 4P96094. The application was submitted, as required by Administrative Consent Order with Penalty ACOP-SE-16-9002-27.

LPA No. SE-17-002 proposes to continue to use Thermal Oxidation, as previously approved in NMCPA No. 4P96094, for the continued control of odor and to control VOC exempt solvent (acetone) as contained in coatings applied on Coating lines 1 and 2, Emission Unit No. 1 (EU1).

The Permittee proposes to utilize VOC exempt solvent (acetone) in facility cleaning operations that may be conducted outside the facility permanent total enclosure (PTE), which may result in non-criteria emissions to the atmosphere of greater than one ton per year.

For the facility cleaning operations, Emission Unit No. 2 (EU2), the Permittee has proposed best management practices (BMP), work practice standards, and pollution prevention practices to reduce use and minimize emissions and odor from VOC exempt solvent to atmosphere.

In addition to EU1 and EU2, the Permittee has stated that plans are in development for the installation of a third coating line, and associated vertical drying oven, to apply 100 percent solids coatings that will be installed in the future under the exemption from Plan Approval at 310 CMR 7.02(2)(b) 15. Fuel Utilization Facilities, and/or § 7.02(2)(b) 7. De minimis Increase in Emissions.

Best Available Control Technology (BACT) is defined in Table 2.

¹ Hazardous Air Pollutant(s), as listed in the 1990 Clean Air Act (CAA) Amendments, Section 112(b).

2. EMISSION UNIT (EU) IDENTIFICATION

Each Emission Unit (EU) identified in Table 1 is subject to and regulated by this Plan Approval:

Table 1			
EU	Description	Design Capacity	Pollution Control Device (PCD)
1	Resin Coating Line 1	Maximum Process rate: 1395.8 lbs/hr ^{Note 1} Drying oven (3) maximum heat input: 9.0MMBtu/hr	Combustion Engineering Model 5-3 Thermal Oxidizer Heat input: 9.5 MMBtu/hr
	Resin Coating Line 2	Maximum Process rate: 1042 lbs/hr ^{Note 1} Drying oven (1) maximum heat input: 4.0MMBtu/hr	
2	Cleaning operations	N/A	None

Table 1 Note:

Note 1: Nominal coating application rate, obtained from Facility's 2013 Source Registration.

Table 1 Key:

EU = Emission Unit Number

MMBtu/hr = million British thermal units per hour

N/A = not applicable

PCD = Pollution Control Device

3. APPLICABLE REQUIREMENTS

A. OPERATIONAL, PRODUCTION and EMISSION LIMITS

The Permittee is subject to, and shall not exceed the Operational, Production, and Emission Limits as contained in Table 2:

Table 2			
EU	Operational / Production Limit	Air Contaminant	Emission Limit
1	1. VOC exempt organic material ^{Note 1} (e.g. Acetone), as contained in coating materials, shall not exceed 55.5 tons per month. 2. VOC exempt organic material ^{Note 1} (e.g. Acetone), as contained in coating materials, shall not exceed 333.3 tons per consecutive 12-month period. 3. Thermal Oxidizer Capture Efficiency: 100% 4. Thermal Oxidizer VOC exempt organic material ^{Note 1} (e.g. Acetone), destruction efficiency: 99.1% 5. Minimum combustion chamber temperature: 1400°F 6. Residence time \geq 1.5 seconds	Non-criteria Pollutants ^{Note 2} (Acetone, or other VOC exempt organic material)	0.50 TPM
			3.00 TPY

Table 2			
EU	Operational / Production Limit	Air Contaminant	Emission Limit
2	7. VOC exempt organic material ^{Note 1} (e.g. Acetone) as contained in cleaning materials shall not exceed 1.15 tons per month	Non-criteria Pollutants ^{Note 3} (Acetone, or other VOC exempt organic material)	1.15 TPM
	8. VOC exempt organic material ^{Note 1} (e.g. Acetone) as contained in cleaning materials shall not exceed 6.90 tons per month		6.90 TPY

Table 2 Notes:

Note 1: VOC Exempt organic material, for the purpose of this plan approval, shall not include HAP.

Note 2: The Permittee is currently using Acetone as an alternate to VOC in many coating formulations. This approval shall not restrict the Permittee from using an alternative VOC exempt organic material, as an alternative to Acetone, for coating formulations provided the Thermal Oxidizer destruction efficiency requirement is met, and the use does not create a condition of air pollution due to the emission of odor.

Note 3: The Permittee is currently using Acetone based cleaning materials for uncontrolled cleaning operations. This approval shall not restrict the Permittee from using an alternative VOC exempt organic material, as an alternative to Acetone, for cleaning purposes. The emission limit established in Table 2 applies to Acetone, or any non-HAP, non-criteria pollutant.

Table 2 Key:

EU = Emission Unit

HAP = Hazardous Air Pollutant(s)

N/A = not applicable

TPM = Tons per month

TPY = Tons per consecutive 12 month period

VOC = Volatile Organic Compound(s)

B. COMPLIANCE DEMONSTRATION

The Permittee is subject to, and shall comply with, the monitoring, testing, record keeping, and reporting requirements as contained in Tables 3, 4, and 5:

Table 3	
EU	Monitoring and Testing Requirements
1	1. The Permittee shall monitor the usage of acetone, or other VOC exempt organic material, as contained in coating formulations, in order to comply with the emission limitations and operational limitations contained in Table 2.
	2. The Permittee shall continuously monitor the Thermal Oxidizer temperature, as measured immediately before leaving the combustion chamber, to ensure 99.1% destruction efficiency of acetone, or other VOC exempt organic material, as contained in coatings used.
2	3. The Permittee shall monitor the usage of acetone, or other VOC exempt organic material, as contained in cleaning materials, in order to comply with the emission limitations contained in Table 2.
Facility-wide	4. The Permittee shall monitor all operations to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.

Table 3	
EU	Monitoring and Testing Requirements
Facility-wide	5. If and when MassDEP requires it, the Permittee shall conduct emission testing in accordance with USEPA Reference Test Methods and Regulation 310 CMR 7.13

Table 3 Key:

CMR = Code of Massachusetts Regulations

EU = Emission Unit

MassDEP = Massachusetts Department of Environmental Protection

USEPA = United States Environmental Protection Agency

Table 4	
EU	Record Keeping Requirements
1	1. The Permittee shall ensure that coating formulation records for any existing or new coating formulations include density and acetone, or other VOC exempt organic material, by weight percent, or pounds of acetone, or other VOC exempt organic material, per gallon of coating.
2	2. The Permittee shall maintain a record of the usage of acetone, or other VOC exempt organic material, as contained in cleaning materials for each monthly, and consecutive twelve-month period.
Facility-wide	3. The Permittee shall maintain adequate records on-site to demonstrate compliance with all operational, production, and emission limits contained in Table 2 above. Records shall also include the actual emissions of air contaminant(s) emitted for each calendar month and for each consecutive twelve-month period (current month plus prior eleven months). These records shall be compiled no later than the 15 th day following each month. An electronic version of the MassDEP approved record keeping form, in Microsoft Excel format, can be downloaded at http://www.mass.gov/eea/agencies/massdep/air/approvals/limited-emissions-record-keeping-and-reporting.html#WorkbookforReportingOn-SiteRecordKeeping .
	4. The Permittee shall maintain records of monitoring and testing as required by Table 3.
	5. The Permittee shall maintain a copy of this Plan Approval, underlying Application and the most up-to-date SOMP for the EU(s) and PCD(s) approved herein on-site.
	6. The Permittee shall maintain a record of routine maintenance activities performed on the approved EU(s), PCD(s) and monitoring equipment. The records shall include, at a minimum, the type or a description of the maintenance performed and the date and time the work was completed.
	7. The Permittee shall maintain a record of all malfunctions affecting air contaminant emission rates on the approved EU(s), PCD(s) and monitoring equipment. At a minimum, the records shall include: date and time the malfunction occurred; description of the malfunction; corrective actions taken; the date and time corrective actions were initiated and completed; and the date and time emission rates and monitoring equipment returned to compliant operation.
	8. The Permittee shall maintain records to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.

Table 4	
EU	Record Keeping Requirements
Facility-wide	9. The Permittee shall maintain records required by this Plan Approval on-site for a minimum of five (5) years.
	10. The Permittee shall make records required by this Plan Approval available to MassDEP and USEPA personnel upon request.

Table 4 Key:

EU = Emission Unit Number
MassDEP = Massachusetts Department of Environmental Protection
PCD = Pollution Control Device
SOMP = Standard Operating and Maintenance Procedure
USEPA = United States Environmental Protection Agency

Table 5	
EU	Reporting Requirements
Facility-wide	1. The Permittee shall submit to MassDEP all information required by this Plan Approval over the signature of a "Responsible Official" as defined in 310 CMR 7.00 and shall include the Certification statement as provided in 310 CMR 7.01(2)(c).
	2. The Permittee shall notify the Southeast Regional Office of MassDEP, BAW Compliance and Enforcement (C&E) Chief by telephone: (508) 946-2817, or fax: 508-947-6557, as soon as possible, but no later than three (3) business days after discovery of an exceedance(s) of Table 2 requirements. A written report shall be submitted to the C&E Chief at MassDEP within ten (10) business days thereafter and shall include: identification of exceedance(s), duration of exceedance(s), reason for the exceedance(s), corrective actions taken, and action plan to prevent future exceedance(s).
	3. The Permittee shall report to MassDEP, in accordance with 310 CMR 7.12, all information as required by the Source Registration/Emission Statement Form. The Permittee shall note therein any minor changes (under 310 CMR 7.02(2)(e), 7.03, 7.26, etc.), which did not require Plan Approval.
	4. The Permittee shall provide a copy to MassDEP of any record required to be maintained by this Plan Approval within 30 days from MassDEP's request.
	5. The Permittee shall submit to MassDEP for approval a stack emission pretest protocol, at least 30 days prior to emission testing, for emission testing as defined in Table 3 Monitoring and Testing Requirements.
	6. The Permittee shall submit to MassDEP a final stack emission test results report, within 45 days after emission testing, for emission testing as defined in Table 3 Monitoring and Testing Requirements.

Table 5 Key:

BAW = Bureau of Air and Waste
CMR = Code of Massachusetts Regulations
EU = Emission Unit Number
MassDEP = Massachusetts Department of Environmental Protection

4. **SPECIAL TERMS AND CONDITIONS**

The Permittee is subject to, and shall comply with, the following special terms and conditions:

- A. The Permittee is subject to and shall comply with the Special Terms and Conditions as contained in Table 6:

Table 6	
EU	Special Terms and Conditions
1	1. Emissions from the coating lines shall be directed to the thermal oxidizer when coatings contain HAP, VOC, and/or acetone, or other VOC exempt organic material.
Facility-wide	2. The Permittee may reconcile the VOC, HAP, and VOC exempt organic material contained in any hazardous waste shipped during the month when determining monthly emissions. The Permittee shall maintain beginning and end of year inventory records, hazardous waste disposal records, and purchase records for VOC, HAPs, and VOC exempt organic material containing materials, etc, such that MassDEP may check these for consistency with plant logs. Such records shall verify the VOC, HAP, VOC exempt organic material and the quantity present in the waste being shipped, if reconciling monthly emissions.
	3. The Permittee shall store and dispose of VOC, HAP and/or VOC exempt organic material containing solvents in a manner which will minimize evaporation to the atmosphere. Proper storage shall be in a container with a tight fitting cover.
	4. The Permittee shall conduct all handling and transferring operations involving VOC, HAP and/or VOC exempt organic material containing solvents in a way that minimizes spills and releases of VOC, HAP and/or VOC exempt organic material.
	5. Any prior Plan Approvals issued under 310 CMR 7.02 shall remain in effect unless specifically changed or superseded by this Plan Approval. The Facility shall not exceed the emission limits and shall comply with approved conditions specified in the prior Plan Approval(s) unless specifically altered by this Plan Approval.

Table 6 Key:

CMR = Code of Massachusetts Regulations

EU = Emission Unit Number

HAP = Hazardous Air Pollutant(s)

MassDEP = Massachusetts Department of Environmental Protection

VOC = Volatile Organic Compound(s)

- B. The Permittee shall install and use an exhaust stack, as required in Table 7, on each of the Emission Units that is consistent with good air pollution control engineering practice and that discharges so as to not cause or contribute to a condition of air pollution. Each exhaust stack shall be configured to discharge the gases vertically and shall not be equipped with any part or device that restricts the vertical exhaust flow of the emitted gases, including but not limited to rain protection devices known as “shanty caps” and “egg beaters.”

- C. The Permittee shall install and utilize exhaust stacks with the following parameters, as contained in Table 7, for the Emission Units that are regulated by this Plan Approval:

Table 7				
EU	Stack Height Above Ground (feet)	Stack Inside Exit Dimensions (feet)	Stack Gas Exit Velocity Range (feet per second)	Stack Gas Exit Temperature Range (°F)
1	40	3.1	45-55	800-830
2	g.v.	g.v.	g.v.	g.v.

Table 7 Key:
 EU = Emission Unit Number
 °F = Degree Fahrenheit
 g.v. = general ventilation

5. GENERAL CONDITIONS

The Permittee is subject to, and shall comply with, the following general conditions:

- A. Pursuant to 310 CMR 7.01, 7.02, 7.09 and 7.10, should any nuisance condition(s), including but not limited to smoke, dust, odor or noise, occur as the result of the operation of the Facility, then the Permittee shall immediately take appropriate steps including shutdown, if necessary, to abate said nuisance condition(s).
- B. If asbestos remediation/removal will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that all removal/remediation of asbestos shall be done in accordance with 310 CMR 7.15 in its entirety and 310 CMR 4.00.
- C. If construction or demolition of an industrial, commercial or institutional building will occur as a result of the approved construction, reconstruction, or alteration of this Facility, the Permittee shall ensure that said construction or demolition shall be done in accordance with 310 CMR 7.09(2) and 310 CMR 4.00.
- D. Pursuant to 310 CMR 7.01(2)(b) and 7.02(7)(b), the Permittee shall allow MassDEP and / or USEPA personnel access to the Facility, buildings, and all pertinent records for the purpose of making inspections and surveys, collecting samples, obtaining data, and reviewing records.
- E. This Plan Approval does not negate the responsibility of the Permittee to comply with any other applicable Federal, State, or local regulations now or in the future.
- F. Should there be any differences between the Application and this Plan Approval, the Plan Approval shall govern.

- G. Pursuant to 310 CMR 7.02(3)(k), MassDEP may revoke this Plan Approval if the construction work is not commenced within two years from the date of issuance of this Plan Approval, or if the construction work is suspended for one year or more.
- H. This Plan Approval may be suspended, modified, or revoked by MassDEP if MassDEP determines that any condition or part of this Plan Approval is being violated.
- I. This Plan Approval may be modified or amended when in the opinion of MassDEP such is necessary or appropriate to clarify the Plan Approval conditions or after consideration of a written request by the Permittee to amend the Plan Approval conditions.
- J. Pursuant to 310 CMR 7.01(3) and 7.02(3)(f), the Permittee shall comply with all conditions contained in this Plan Approval. Should there be any differences between provisions contained in the General Conditions and provisions contained elsewhere in the Plan Approval, the latter shall govern.

6. MASSACHUSETTS ENVIRONMENTAL POLICY ACT

MassDEP has determined that the filing of an Environmental Notification Form (ENF) with the Secretary of Energy & Environmental Affairs, for air quality control purposes, was not required prior to this action by MassDEP. Notwithstanding this determination, the Massachusetts Environmental Policy Act (MEPA) and 301 CMR 11.00, Section 11.04, provide certain “Fail-Safe Provisions,” which allow the Secretary to require the filing of an ENF and/or an Environmental Impact Report (EIR) at a later time.

7. APPEAL PROCESS

This Plan Approval is an action of MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing. A request for a hearing must be made in writing and postmarked within twenty-one (21) days of the date of issuance of this Plan Approval.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts, which are the grounds for the request, and the relief sought. Additionally, the request must state why the Plan Approval is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to the Commonwealth of Massachusetts in the amount of one hundred dollars (\$100.00) must be mailed to:

Commonwealth of Massachusetts
Department of Environmental Protection
P.O. Box 4062
Boston, MA 02211

This request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below. The filing fee is not required if the appellant is a city or town (or municipal agency), county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

MassDEP may waive the adjudicatory hearing-filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.

Enclosed is a stamped approved copy of the application submittal.

Should you have any questions concerning this Plan Approval, please contact Peter Russell by telephone at (508) 946-2821, or in writing at the letterhead address.

Sincerely,

This final document copy is being provided to you electronically by the
Department of Environmental Protection. A signed copy of this document
is on file at the DEP office listed on the letterhead.

Thomas Cushing, Chief
Permit Section
Bureau of Air and Waste

Enclosure

ecc: Falmouth Health Department
Falmouth Fire Department
Eric Pearson, ESS Group
MassDEP/Boston – Yi Tian
MassDEP/SERO – Maria Pinaud, Lisa Ramos, Peter Russell